

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/223,263ADATE: 08/27/96  
TIME: 10:03:29

INPUT SET: S12354.raw #15

This Raw Listing contains the General  
Information Section and up to the first 5 pages.

NB  
08/31/96

## SEQUENCE LISTING

## (1) General Information:

(i) APPLICANT: Eaton, Dan L.  
de Sauvage, Frederic J.

ENTERED

(ii) TITLE OF INVENTION: HUMAN MPL LIGAND

(iii) NUMBER OF SEQUENCES: 30

## (iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: Genentech, Inc.  
(B) STREET: 460 Point San Bruno Blvd  
(C) CITY: South San Francisco  
(D) STATE: California  
(E) COUNTRY: USA  
(F) ZIP: 94080

## (v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk  
(B) COMPUTER: IBM PC compatible  
(C) OPERATING SYSTEM: PC-DOS/MS-DOS  
(D) SOFTWARE: WinPatin (Genentech)

## (vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: 08/223263  
(B) FILING DATE: 04-Apr-1994  
(C) CLASSIFICATION:

## (vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: 08/196689  
(B) FILING DATE: 15-FEB-1994

## (vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: 08/185607  
(B) FILING DATE: 21-JAN-1994

## (vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: 08/176553  
(B) FILING DATE: 3-JAN-1994

## (viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Winter, Daryl B.  
(B) REGISTRATION NUMBER: 32,637  
(C) REFERENCE/DOCKET NUMBER: P0871P3

# RAW SEQUENCE LISTING

## PATENT APPLICATION US/08/223,263A

DATE: 08/27/96  
TIME: 10:03:34

INPUT SET: S12354.raw

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47
48 (ix) TELECOMMUNICATION INFORMATION:
49 (A) TELEPHONE: 415/225-1249
50 (B) TELEFAX: 415/952-9881
51 (C) TELEX: 910/371-7168
52
53 (2) INFORMATION FOR SEQ ID NO:1:
54
55 (i) SEQUENCE CHARACTERISTICS:
56 (A) LENGTH: 353 amino acids
57 (B) TYPE: Amino Acid
58 (D) TOPOLOGY: Linear
59
60 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
61
62 Met Glu Leu Thr Glu Leu Leu Leu Val Val Met Leu Leu Leu Thr
63 -21 -20 -15 -10
64
65 Ala Arg Leu Thr Leu Ser Ser Pro Ala Pro Pro Ala Cys Asp Leu
66 -5 1 5
67
68 Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser
69 10 15 20
70
71 Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val
72 25 30 35
73
74 Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln
75 40 45 50
76
77 Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu
78 55 60 65
79
80 Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr
81 70 75 80
82
83 Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu
84 85 90 95
85
86 Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro
87 100 105 110
88
89 Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu
90 115 120 125
91
92 Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
93 130 135 140
94
95 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr
96 145 150 155
97
98 Ala Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
99 160 165 170

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RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/223,263ADATE: 08/27/96  
TIME: 10:03:39

INPUT SET: S12354.raw

100  
101 Pro Asn Arg Thr Ser Gly Leu Leu Glu Thr Asn Phe Thr Ala Ser  
102 175 180 185  
103  
104 Ala Arg Thr Thr Gly Ser Gly Leu Leu Lys Trp Gln Gln Gly Phe  
105 190 195 200  
106  
107 Arg Ala Lys Ile Pro Gly Leu Leu Asn Gln Thr Ser Arg Ser Leu  
108 205 210 215  
109  
110 Asp Gln Ile Pro Gly Tyr Leu Asn Arg Ile His Glu Leu Leu Asn  
111 220 225 230  
112  
113 Gly Thr Arg Gly Leu Phe Pro Gly Pro Ser Arg Arg Thr Leu Gly  
114 235 240 245  
115  
116 Ala Pro Asp Ile Ser Ser Gly Thr Ser Asp Thr Gly Ser Leu Pro  
117 250 255 260  
118  
119 Pro Asn Leu Gln Pro Gly Tyr Ser Pro Ser Pro Thr His Pro Pro  
120 265 270 275  
121  
122 Thr Gly Gln Tyr Thr Leu Phe Pro Leu Pro Pro Thr Leu Pro Thr  
123 280 285 290  
124  
125 Pro Val Val Gln Leu His Pro Leu Leu Pro Asp Pro Ser Ala Pro  
126 295 300 305  
127  
128 Thr Pro Thr Pro Thr Ser Pro Leu Leu Asn Thr Ser Tyr Thr His  
129 310 315 320  
130  
131 Ser Gln Asn Leu Ser Gln Glu Gly  
132 325 330 332  
133

134 (2) INFORMATION FOR SEQ ID NO:2:

135  
136 (i) SEQUENCE CHARACTERISTICS:

137 (A) LENGTH: 1795 base pairs

138 (B) TYPE: Nucleic Acid

139 (C) STRANDEDNESS: Single

140 (D) TOPOLOGY: Linear

141

142 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

143

144

145 TCTTCCTACC CATCTGCTCC CCAGAGGGCT GCCTGCTGTG CACTTGGGTC 50

146

147 CTGGAGCCCT TCTCCACCCG GATAGATTCC TCACCCTTGG CCCGCCTTTG 100

148

149 CCCACCCCTA CTCTGCCCAG AAGTGCAAGA GCCTAAGCCG CCTCCATGGC 150

150

151 CCCAGGAAGG ATTCAGGGGA GAGGCCCCAA ACAGGGAGCC ACGCCAGCCA 200

152

# RAW SEQUENCE LISTING PATENT APPLICATION US/08/223,263A

DATE: 08/27/96  
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153 GACACCCCGG CCAGA ATG GAG CTG ACT GAA TTG CTC CTC 239
154 Met Glu Leu Thr Glu Leu Leu
155 -21 -20 -15
156
157 GTG GTC ATG CTT CTC CTA ACT GCA AGG CTA ACG CTG TCC 278
158 Val Val Met Leu Leu Leu Thr Ala Arg Leu Thr Leu Ser
159 -10 -5
160
161 AGC CCG GCT CCT CCT GCT TGT GAC CTC CGA GTC CTC AGT 317
162 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser
163 1 5 10
164
165 AAA CTG CTT CGT GAC TCC CAT GTC CTT CAC AGC AGA CTG 356
166 Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu
167 15 20 25
168
169 AGC CAG TGC CCA GAG GTT CAC CCT TTG CCT ACA CCT GTC 395
170 Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val
171 30 35
172
173 CTG CTG CCT GCT GTG GAC TTT AGC TTG GGA GAA TGG AAA 434
174 Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys
175 40 45 50
176
177 ACC CAG ATG GAG GAG ACC AAG GCA CAG GAC ATT CTG GGA 473
178 Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly
179 55 60 65
180
181 GCA GTG ACC CTT CTG CTG GAG GGA GTG ATG GCA GCA CGG 512
182 Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg
183 70 75
184
185 GGA CAA CTG GGA CCC ACT TGC CTC TCA TCC CTC CTG GGG 551
186 Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly
187 80 85 90
188
189 CAG CTT TCT GGA CAG GTC CGT CTC CTC CTT GGG GCC CTG 590
190 Gln Leu Ser Gly Gln Val Arg Leu Leu Leu Gly Ala Leu
191 95 100
192
193 CAG AGC CTC CTT GGA ACC CAG CTT CCT CCA CAG GGC AGG 629
194 Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly Arg
195 105 110 115
196
197 ACC ACA GCT CAC AAG GAT CCC AAT GCC ATC TTC CTG AGC 668
198 Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu Ser
199 120 125 130
200
201 TTC CAA CAC CTG CTC CGA GGA AAG GTG CGT TTC CTG ATG 707
202 Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met
203 135 140
204
205 CTT GTA GGA GGG TCC ACC CTC TGC GTC AGG CGG GCC CCA 746

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# RAW SEQUENCE LISTING PATENT APPLICATION US/08/223,263A

DATE: 08/27/96  
TIME: 10:03:49

INPUT SET: S12354.raw

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| 206 | Leu | Val | Gly | Gly | Ser | Thr | Leu | Cys | Val | Arg | Arg | Ala | Pro |      |
| 207 |     | 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |      |
| 208 |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 209 | CCC | ACC | ACA | GCT | GTC | CCC | AGC | AGA | ACC | TCT | CTA | GTC | CTC | 785  |
| 210 | Pro | Thr | Thr | Ala | Val | Pro | Ser | Arg | Thr | Ser | Leu | Val | Leu |      |
| 211 |     |     |     | 160 |     |     |     |     |     | 165 |     |     |     |      |
| 212 |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 213 | ACA | CTG | AAC | GAG | CTC | CCA | AAC | AGG | ACT | TCT | GGA | TTG | TTG | 824  |
| 214 | Thr | Leu | Asn | Glu | Leu | Pro | Asn | Arg | Thr | Ser | Gly | Leu | Leu |      |
| 215 | 170 |     |     |     |     | 175 |     |     |     |     | 180 |     |     |      |
| 216 |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 217 | GAG | ACA | AAC | TTC | ACT | GCC | TCA | GCC | AGA | ACT | ACT | GGC | TCT | 863  |
| 218 | Glu | Thr | Asn | Phe | Thr | Ala | Ser | Ala | Arg | Thr | Thr | Gly | Ser |      |
| 219 |     |     | 185 |     |     |     |     | 190 |     |     |     |     | 195 |      |
| 220 |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 221 | GGG | CTT | CTG | AAG | TGG | CAG | CAG | GGA | TTC | AGA | GCC | AAG | ATT | 902  |
| 222 | Gly | Leu | Leu | Lys | Trp | Gln | Gln | Gly | Phe | Arg | Ala | Lys | Ile |      |
| 223 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |      |
| 224 |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 225 | CCT | GGT | CTG | CTG | AAC | CAA | ACC | TCC | AGG | TCC | CTG | GAC | CAA | 941  |
| 226 | Pro | Gly | Leu | Leu | Asn | Gln | Thr | Ser | Arg | Ser | Leu | Asp | Gln |      |
| 227 |     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |      |
| 228 |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 229 | ATC | CCC | GGA | TAC | CTG | AAC | AGG | ATA | CAC | GAA | CTC | TTG | AAT | 980  |
| 230 | Ile | Pro | Gly | Tyr | Leu | Asn | Arg | Ile | His | Glu | Leu | Leu | Asn |      |
| 231 |     |     |     | 225 |     |     |     |     | 230 |     |     |     |     |      |
| 232 |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 233 | GGA | ACT | CGT | GGA | CTC | TTT | CCT | GGA | CCC | TCA | CGC | AGG | ACC | 1019 |
| 234 | Gly | Thr | Arg | Gly | Leu | Phe | Pro | Gly | Pro | Ser | Arg | Arg | Thr |      |
| 235 | 235 |     |     |     |     | 240 |     |     |     |     | 245 |     |     |      |
| 236 |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 237 | CTA | GGA | GCC | CCG | GAC | ATT | TCC | TCA | GGA | ACA | TCA | GAC | ACA | 1058 |
| 238 | Leu | Gly | Ala | Pro | Asp | Ile | Ser | Ser | Gly | Thr | Ser | Asp | Thr |      |
| 239 |     |     | 250 |     |     |     |     | 255 |     |     |     |     | 260 |      |
| 240 |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 241 | GGC | TCC | CTG | CCA | CCC | AAC | CTC | CAG | CCT | GGA | TAT | TCT | CCT | 1097 |
| 242 | Gly | Ser | Leu | Pro | Pro | Asn | Leu | Gln | Pro | Gly | Tyr | Ser | Pro |      |
| 243 |     |     |     |     | 265 |     |     |     |     | 270 |     |     |     |      |
| 244 |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 245 | TCC | CCA | ACC | CAT | CCT | CCT | ACT | GGA | CAG | TAT | ACG | CTC | TTC | 1136 |
| 246 | Ser | Pro | Thr | His | Pro | Pro | Thr | Gly | Gln | Tyr | Thr | Leu | Phe |      |
| 247 |     | 275 |     |     |     |     | 280 |     |     |     |     | 285 |     |      |
| 248 |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 249 | CCT | CTT | CCA | CCC | ACC | TTG | CCC | ACC | CCT | GTG | GTC | CAG | CTC | 1175 |
| 250 | Pro | Leu | Pro | Pro | Thr | Leu | Pro | Thr | Pro | Val | Val | Gln | Leu |      |
| 251 |     |     |     | 290 |     |     |     |     | 295 |     |     |     |     |      |
| 252 |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 253 | CAC | CCC | CTG | CTT | CCT | GAC | CCT | TCT | GCT | CCA | ACG | CCC | ACC | 1214 |
| 254 | His | Pro | Leu | Leu | Pro | Asp | Pro | Ser | Ala | Pro | Thr | Pro | Thr |      |
| 255 | 300 |     |     |     |     | 305 |     |     |     |     | 310 |     |     |      |
| 256 |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 257 | CCT | ACC | AGC | CCT | CTT | CTA | AAC | ACA | TCC | TAC | ACC | CAC | TCC | 1253 |
| 258 | Pro | Thr | Ser | Pro | Leu | Leu | Asn | Thr | Ser | Tyr | Thr | His | Ser |      |

PAGE: 1

**SEQUENCE VERIFICATION REPORT**  
**PATENT APPLICATION US/08/223,263A**

DATE: 08/27/96  
TIME: 10:03:55

*INPUT SET: S12354.raw*

| Line | Error                           | Original Text                     |
|------|---------------------------------|-----------------------------------|
| 27   | Wrong application Serial Number | (A) APPLICATION NUMBER: 08/223263 |